

## Connecting via Winsock to STN

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FILE 'HOME' ENTERED AT 10:17:37 ON 19 APR 2010

=>  
=> file reg

=> s montelukast  
L1 8 MONTELUKAST

=> Q 1-8

L1 ANSWER 1 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 1021952-73-7 REGISTRY  
ED Entered STN: 22 May 2008  
CN L-Arginine, 1-[{[(1R)-1-{[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl)-3-[(2-(1-hydroxy-1-methyl ethyl)phenyl]propyl]thio]methyl}cyclopropaneacetate(1:1) (CA INDEX NAME)

**OTHER NAMES:**

CN Montelukast arginine salt

STEREOSEARCH

MF C35 H36 C1 N O3 S , C6 H14 N4 O2

SB

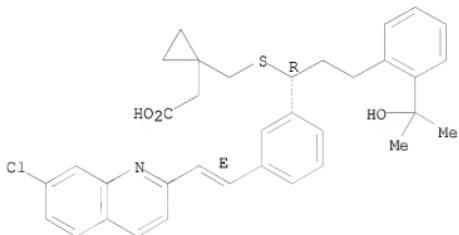
LC STN Files: CA, CAPIUS

CM 1

CRN 158966-92-8

CMF C35 H36 Cl N O3 S

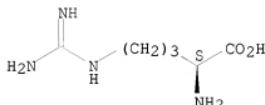
Absolute stereochemistry.  
Double bond geometry as shown.



CM 2

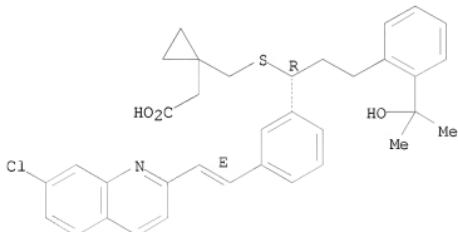
CRN 74-79-3  
CMF C6 H14 N4 O2

Absolute stereochemistry.

1 REFERENCES IN FILE CA (1907 TO DATE)  
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 2 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 880769-33-5 REGISTRY  
 ED Entered STN: 18 Apr 2006  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl-, compd. with N-(1-methylethyl)-2-propanamine (1:1) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Montelukast diisopropylamine salt  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S . C6 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 158966-92-8  
CMF C35 H36 Cl N O3 SAbsolute stereochemistry.  
Double bond geometry as shown.

CM 2

CRN 108-18-9  
 CMF C6 H15 N

i-Pr-NH-Pr-i

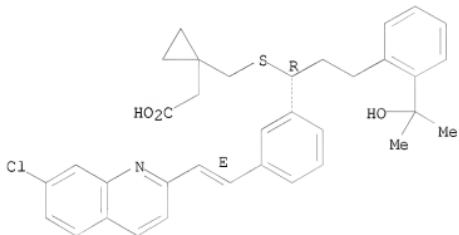
3 REFERENCES IN FILE CA (1907 TO DATE)  
 3 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 3 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 880769-32-4 REGISTRY  
 ED Entered STN: 18 Apr 2006  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl-, compd. with N-(phenylmethyl)benzenemethanamine (1:1) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Montelukast dibenzylamine salt  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S . C14 H15 N  
 SR CA  
 LC STN Files: CA, CAPLUS, USPATFULL

CM 1

CRN 158966-92-8  
 CMF C35 H36 Cl N O3 S

Absolute stereochemistry.  
 Double bond geometry as shown.



CM 2

CRN 103-49-1  
 CMF C14 H15 N

Ph-CH<sub>2</sub>-NH-CH<sub>2</sub>-Ph

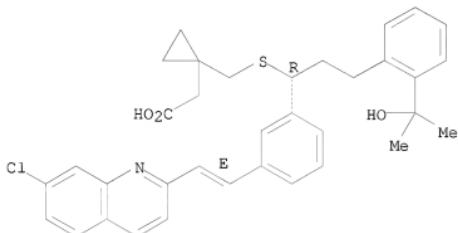
1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 4 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 851755-58-3 REGISTRY  
 ED Entered STN: 07 Jun 2005  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylsulfonyl)phenyl]propyl]thio)methyl-, compd. with 2-methyl-2-propanamine (1:1) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Montelukast tert-butylamine  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S . C4 H11 N  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT, CHEMLIST, TOXCENTER, USPAT2, USPATFULL

CM 1

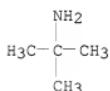
CRN 158966-92-8  
 CMF C35 H36 Cl N O3 S

Absolute stereochemistry.  
 Double bond geometry as shown.



CM 2

CRN 75-64-9  
 CMF C4 H11 N



11 REFERENCES IN FILE CA (1907 TO DATE)  
 11 REFERENCES IN FILE CAPLUS (1907 TO DATE)

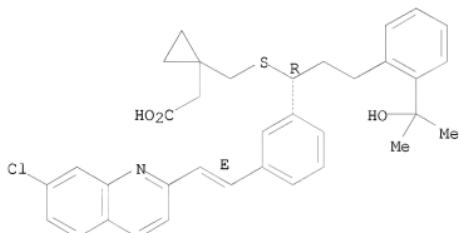
L1 ANSWER 5 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 577953-88-9 REGISTRY  
 ED Entered STN: 03 Sep 2003  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]-, compd. with N-cyclohexylcyclohexanamine (1:1) (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 2-[(1R)-1-[3-[(1E)-2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio[methylcyclopropyl]acetic acid dicyclohexylamine salt  
 CN Montelukast dicyclohexylamine salt  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S . C12 H23 N  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, TOXCENTER, USPAT2, USPATFULL

CM 1

CRN 158966-92-8

CMF C35 H36 Cl N O3 S

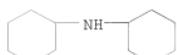
Absolute stereochemistry.  
 Double bond geometry as shown.



CM 2

CRN 101-83-7

CMF C12 H23 N

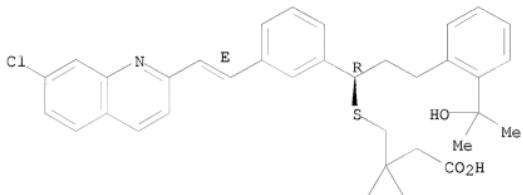


18 REFERENCES IN FILE CA (1907 TO DATE)

18 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 6 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 577953-85-6 REGISTRY  
 ED Entered STN: 03 Sep 2003  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]-, calcium salt (2:1) (CA INDEX NAME)  
 OTHER NAMES:  
 CN Montelukast calcium  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S . 1/2 Ca  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT, TOXCENTER, USPAT2, USPATFULL  
 CRN (158966-92-8)

Absolute stereochemistry.  
 Double bond geometry as shown.



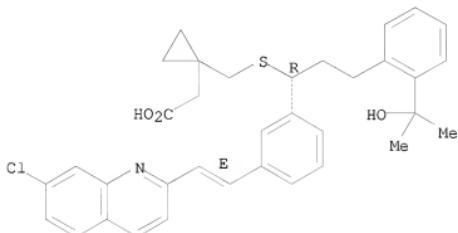
● 1/2 Ca

4 REFERENCES IN FILE CA (1907 TO DATE)  
 4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 7 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 158966-92-8 REGISTRY  
 ED Entered STN: 15 Nov 1994  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Cyclopropaneacetic acid, 1-[(1-[3-[2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]-, [R-(E)]-  
 OTHER NAMES:  
 CN 1-[(1R)-1-[3-(1E)-2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropaneacetic acid  
 CN 2-1-[(1R)-1-[3-(1E)-2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropyl]acetic acid  
 CN Montelukast  
 CN [1-[(1R)-1-[3-(1E)-2-(7-Chloroquinolin-2-yl)vinyl]phenyl]-3-[2-(1-

hydroxy-1-methylethyl)phenyl]propyl]sulfanyl)methyl]cyclopropyl]acetic acid  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S  
 CI COM  
 SR World Health Organization (WHO)  
 LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, BIOSIS, BIOTECHNO, CA,  
     CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE, HSDB\*,  
     IMSDRUGNEWS, IMSPATENTS, IMSPRODUCT, IMSRESEARCH, IPA, MEDLINE, MRCK\*,  
     PATDASPAC, PROMT, PROUSDDR, PS, RTECS\*, SYNTHLINE, TOXCENTER, USAN,  
     USPAT2, USPATFULL  
     (\*File contains numerically searchable property data)  
 Other Sources: WHO

Absolute stereochemistry.  
 Double bond geometry as shown.



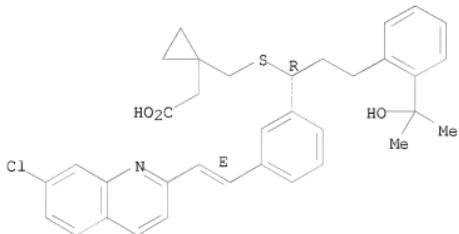
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

849 REFERENCES IN FILE CA (1907 TO DATE)  
 21 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 852 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L1 ANSWER 8 OF 8 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 151767-02-1 REGISTRY  
 ED Entered STN: 16 Dec 1993  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]-, sodium salt (1:1) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]-, monosodium salt (9CI)  
 CN Cyclopropaneacetic acid, 1-[(1-[3-(2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]-, monosodium salt, [R-(E)]-  
 OTHER NAMES:  
 CN 1-[(1R)-1-[3-(1E)-2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]cyclopropaneacetic acid sodium salt

CN 2-[1-[(1R)-1-[3-((1E)-2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thiomethyl)cyclopropyl]acetic acid sodium salt  
 CN MK 476  
 CN Momazol  
 CN Montair  
 CN Montelukast monosodium salt  
 CN Montelukast sodium  
 CN Shantroz  
 CN Singulair  
 CN Sodium 2-[1-[(1R)-1-[3-((E)-2-(7-chloroquinolin-2-yl)vinyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]sulfanyl)methyl)cyclopropyl]acetate  
 CN Sodium montelukast  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S . Na  
 CI COM  
 SR US Adopted Names Council (USAN)  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS,  
 CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, HSDB\*,  
 IMSPATENTS, IMSRESEARCH, IPA, MRCK\*, PATDPASPC, PROMT, PROUSDDR, PS,  
 RTECS\*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 CRN (158966-92-8)

Absolute stereochemistry.  
 Double bond geometry as shown.



● Na

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

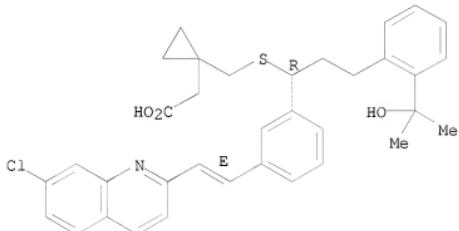
316 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 320 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s 158966-92-8/rn  
L2 1 158966-92-8/RN

=> d

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 158966-92-8 REGISTRY  
ED Entered STN: 15 Nov 1994  
CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Cyclopropaneacetic acid, 1-[(1-[3-[2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]-, [R-(E)]-  
OTHER NAMES:  
CN 1-[(1R)-1-[3-((1E)-2-(7-Chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropaneacetic acid  
CN 2-1-[(1R)-1-[3-((1E)-2-(7-Chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropyl]acetic acid  
CN Montelukast  
CN 1-[(1R)-1-[3-((1E)-2-(7-Chloroquinolin-2-yl)vinyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]sulfanyl]methyl)cyclopropyl]acetic acid  
FS STEREOSEARCH  
MF C35 H36 Cl N O3 S  
CI COM  
SR World Health Organization (WHO)  
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, BIOSIS, BIOTECHNO, CA,  
CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE, HSDB\*,  
IMSDRUGNEWS, IMSPATENTS, IMSPRODUCT, IMSRESEARCH, IPA, MEDLINE, MRCK\*,  
PATDPAFSC, PROMT, PROUSDDR, PS, RTECS\*, SYNTHLINE, TOXCENTER, USAN,  
USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: WHO

Absolute stereochemistry.  
Double bond geometry as shown.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

10/587537

849 REFERENCES IN FILE CA (1907 TO DATE)  
21 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
852 REFERENCES IN FILE CPLUS (1907 TO DATE)

=> file ca		SINCE FILE	TOTAL
COST IN U.S. DOLLARS		ENTRY	SESSION
FULL ESTIMATED COST		28.32	28.54

FILE 'CA' ENTERED AT 10:22:29 ON 19 APR 2010  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
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FILE COVERS 1907 - 15 Apr 2010 VOL 152 ISS 17  
FILE LAST UPDATED: 15 Apr 2010 (20100415/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

CA now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d his

(FILE 'HOME' ENTERED AT 10:17:37 ON 19 APR 2010)

FILE 'REGISTRY' ENTERED AT 10:17:46 ON 19 APR 2010  
L1            8 S MONTELUKAST  
L2            1 S 158966-92-8/RN

FILE 'CA' ENTERED AT 10:22:29 ON 19 APR 2010

=> s 12  
L3            849 L2

=> s 12 and crystalline  
      849 L2  
      91832 CRYSTALLINE

## L4 5 L2 AND CRYSTALLINE

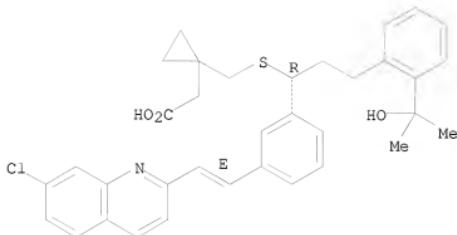
=&gt; d ibib abs hitstr 1-5

L4 ANSWER 1 OF 5 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 150:501196 CA  
 TITLE: Novel crystalline salts of montelukast  
 INVENTOR(S): O'Shea, Paul  
 PATENT ASSIGNEE(S): Merck Frost Canada Ltd., Can.  
 SOURCE: PCT Int. Appl., 31pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009052625	A1	20090430	WO 2008-CA1875	20081023
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2007-342P P 20071025  
 AB The present application relates to crystalline 1,2-ethanedisulfonic acid salt  
 and N,N'-dibenzylethylenediamine salt of montelukast. The salts are  
 useful as therapeutic agents for the treatment of leukotriene mediated  
 diseases and disorders. This application also relates to processes and  
 intermediates for preparing the said salts and pharmaceutical compns.  
 comprising the salts and optionally other therapeutic agents.  
 IT 158966-92-8, Montelukast  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (novel crystalline salts of montelukast)  
 RN 158966-92-8 CA  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-  
 quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-  
 methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

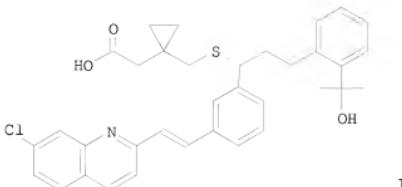
Absolute stereochemistry.  
 Double bond geometry as shown.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 150:501152 CA  
 TITLE: Crystalline montelukast cyclopropylamine salt for preparation of pure amorphous sodium salt  
 INVENTOR(S): Huguet Clotet, Juan; Peirats Masia, Jordi  
 PATENT ASSIGNEE(S): Inke, S.A., Spain  
 SOURCE: PCT Int. Appl., 29pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009053424	A1	20090430	WO 2008-EP64345	20081023
WO 2009053424	A9	20090806		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 2053043	A1	20090429	EP 2007-380294	20071026
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
PRIORITY APPLN. INFO.: EP 2007-380294				A 20071026
OTHER SOURCE(S): CASREACT 150:501152; MARPAT 150:501152				
GI				



**AB** The present invention refers to the novel cyclopropylamine salt of montelukast (**I**) in crystalline form and its use in the process for the preparation

of highly pure amorphous montelukast sodium. **I** is prepared from [1-[1-(R)-3-[2-(1-hydroxy-1-methylethyl)phenyl]propylsulfanyl methyl]cyclopropyl]acetic acid and 7-chloro-2-vinylquinoline. **I** is treated with cyclopropylamine to give a polymorphic form and this is converted to the sodium salt.

**IT** 158966-92-8P, Montelukast

**RL:** RCT (Reactant); **SPN** (Synthetic preparation); **PREP** (Preparation); **RACT** (Reactant or reagent)  
(crystalline montelukast cyclopropylamine salt for preparation of pure amorphous

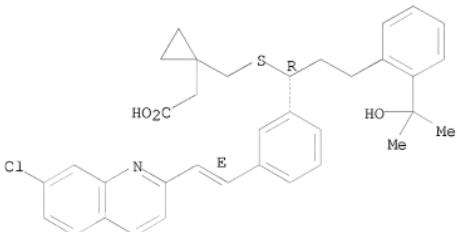
sodium salt)

**RN** 158966-92-8 CA

**CN** Cyclopropaneacetic acid, 1-[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 5 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 150:456452 CA  
 TITLE: Crystalline montelukast cyclopropylamine  
 salt for preparation of pure amorphous sodium salt  
 INVENTOR(S): Huguet Clotet, Joan; Peirats Masia, Jordi  
 PATENT ASSIGNEE(S): Inke, S.A., Spain  
 SOURCE: Eur. Pat. Appl., 17pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 2053043	A1	20090429	EP 2007-380294	20071026
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
US 20090111849	A1	20090430	US 2007-965730	20071227
WO 2009053424	A1	20090430	WO 2008-EP64345	20081023
WO 2009053424	A9	20090806		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				

PRIORITY APPLN. INFO.: EP 2007-380294 A 20071026

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention refers to the novel cyclopropylamine salt of montelukast (I) in crystalline form and its use in the process for the preparation

of highly pure amorphous montelukast sodium. I is prepared from [1-[1-(R)-(3-bromophenyl)-3-[2-(1-hydroxy-1-methylethyl)phenyl]propylsulfanyl methyl]cyclopropyl]acetic acid and 7-chloro-2-vinylquinoline. I is treated with cyclopropylamine to give a polymorphic form and this is converted to the sodium salt.

IT 158966-92-8P, Montelukast

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(crystalline montelukast cyclopropylamine salt for preparation of pure amorphous

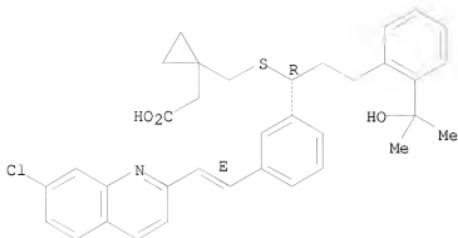
sodium salt)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

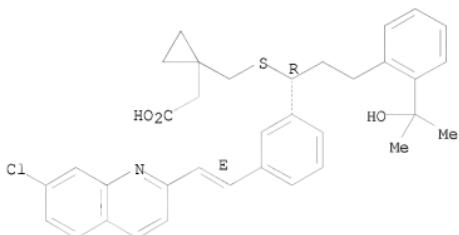
L4 ANSWER 4 OF 5 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 149:582517 CA  
 TITLE: Solid dosage forms of pharmaceutical carriers  
 INVENTOR(S): Cengic, Dzenana; Darmuzey, Olivia; Macleod, Graeme  
 PATENT ASSIGNEE(S): FMC Corporation, USA  
 SOURCE: PCT Int. Appl., 43pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008140460	A1	20081120	WO 2007-US11762	20070516
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: WO 2007-US11762 20070516  
 AB A solid form comprising at least one film enrobing a compacted fill material having at least one active material contained in a matrix and having low friability, a d. of at least 0.5 g/mL based on the total solid volume of the solid form and a tensile strength less than 0.9 MPa and which exhibits a controlled release profile for release of the active material. Zero order release may be achieved.  
 IT 158966-92-8, Montelukast  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (solid dosage forms of pharmaceutical carriers)  
 RN 158966-92-8 CA  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-(1E)-2-(7-chloro-2-

quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)  
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 5 CA COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 149:556455 CA  
TITLE: Process for the preparation of amorphous Montelukast  
sodium salt wherein crystalline forms of  
methanesulfonate intermediate and Montelukast are not  
isolated.

INVENTOR(S): Zyla, Daniel; Rynkiewicz, Robert; Krzyzanowski,  
Mariusz; Ramza, Jan

PATENT ASSIGNEE(S): Zaklad Farmaceutyczne Polpharma S. A., Pol.  
SOURCE: PCT Int. Appl., 22pp.

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008136693	A2	20081113	WO 2008-PL33	20080430
WO 2008136693	A3	20081231		
W: AB, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW, RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,				

AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 2142508	A2	20100113	EP 2008-741772	20080430
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR				
US 20100069641	A1	20100318	US 2009-597746	20091026
IN 2009KN04035	A	20100319	IN 2009-KN4035	20091120
CN 101679268	A	20100324	CN 2008-80017789	20091127
PRIORITY APPLN. INFO.:			PL 2007-382346	A 20070502
			WO 2008-PL33	W 20080430

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 149:556455

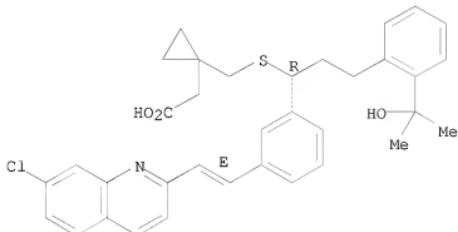
AB Amorphous Montelukast sodium was prepared by (1) reaction of 2-[2-(3S)-[3-[2-(7'-chloro-2-quinolinyl)ethenyl]phenyl]-3-(hydroxypropyl)phenyl]-2-propanol with MesO<sub>2</sub>Cl in the presence of a tertiary amine, (2) filtration of precipitated tertiary amine salt and reaction of the crude methanesulfonate ester with [1-(mercaptopethyl)cyclopropyl]acetic acid disodium salt, (3) isolation of crystalline 1-[{[(1R)-[3-[2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl}sulfanyl]methyl]cyclopropaneacetic acid tert-butylamine salt, (4) purification of this salt until the product has high pharmaceutical purity, and (5) conversion of the purified salt to the title compound

IT 158966-92-8P  
 RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (process for the preparation of amorphous Montelukast sodium salt wherein crystalline forms of methanesulfonate intermediate and Montelukast are not isolated)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[{[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl}thio]methyl- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



=> s montelukast acetic acid  
 1166 MONTELUKAST  
 295818 ACETIC

4930804 ACID  
L5 0 MONTELUKAST ACETIC ACID  
(MONTELUKAST(W)ACETIC(W)ACID)

=> file reg			
COST IN U.S. DOLLARS	SINCE FILE	TOTAL	
FULL ESTIMATED COST	ENTRY	SESSION	
	44.11	72.65	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL	
CA SUBSCRIBER PRICE	ENTRY	SESSION	
	-4.00	-4.00	

FILE 'REGISTRY' ENTERED AT 10:31:48 ON 19 APR 2010  
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STRUCTURE FILE UPDATES: 18 APR 2010 HIGHEST RN 1219538-51-8  
DICTIONARY FILE UPDATES: 18 APR 2010 HIGHEST RN 1219538-51-8

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TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

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REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> s montelukast acetic acid  
8 MONTELUKAST  
1440459 ACETIC  
13010774 ACID  
L6 0 MONTELUKAST ACETIC ACID  
(MONTELUKAST(W)ACETIC(W)ACID)

=> s  
1-(((1(R)-(3-(2-(7-chloro-2-quinolinyl)heynyl)-phenyl)-3-(2-(1-hydroxy-1-methylethyl  
1)phenyl)propyl)thio)methyl) cyclopropane acetic acid  
MISSING OPERATOR '1-('

=> s  
1-(((1(R)-(3-(2-(7-chloro-2-quinolinyl)heynyl)-phenyl)-3-(2-(1-hydroxy-1-methylethyl  
1)phenyl)propyl)thio)methyl) cyclopropane acetic acid  
MISSING OPERATOR '1-('

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"1-(((1(R)-(3-(2-(7-chloro-2-quinolinyl)heynyl)-phenyl)-3-(2-(1-hydroxy-1-methylethyl  
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 35618330 "1"  
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 35618330 "1"  
     3696380 "METHYLETHYL"  
 26184926 "PHENYL"  
     5474449 "PROPYL"  
     5917305 "THIO"  
 32460110 "METHYL"  
     202402 "CYCLOPROPANE"  
     1440459 "ACETIC"  
 13010774 "ACID"  
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         ACETIC ACID"  
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         NYL" "(W)" "THEYNYL" "(W)" "PHENYL" "(W)" "3" "(W)" "2" "(W)" "1" "(W)" "HYDROXY" "(W)" "1  
         "(W)" "METHYLETHYL" "(W)" "PHENYL" "(W)" "PROPYL" "(W)" "THIO" "(W)" "METHYL" "(W)"  
         "CYCLOPROPANE" "(W)" "ACETIC" "(W)" "ACID")"

=> file ca			
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FULL ESTIMATED COST	149.97	222.62	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION	
CA SUBSCRIBER PRICE	0.00	-4.00	

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FILE COVERS 1907 - 15 Apr 2010 VOL 152 ISS 17  
FILE LAST UPDATED: 15 Apr 2010 (20100415/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

CA now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

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"1-((1(R)-(3-(2-(7-chloro-2-quinolinyl)theynyl)-phenyl)-3-(2-(1-hydroxy-1-methylethyl)phenyl)propyl)thio)methyl) cyclopropane acetic acid"  
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7528165 "3"  
9946058 "2"  
3006540 "7"  
378721 "CHLORO"  
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2863 "QUINOLINYL"  
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380998 "PHENYL"  
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13243 "METHYLETHYL"  
380998 "PHENYL"  
106208 "PROPYL"  
72813 "THIO"  
1128811 "METHYL"  
18987 "CYCLOPROPANE"  
295818 "ACETIC"  
4930804 "ACID"  
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("1" "(W)" "1" "(W)" "R" "(W)" "3" "(W)" "2" "(W)" "7" "(W)" "CHLORO" "(W)" "2" "(W)" "QUINOLINYL" "(W)" "THEYNYL" "(W)" "PHENYL" "(W)" "3" "(W)" "2" "(W)" "1" "(W)" "HYDROXY" "(W)" "1" "(W)" "METHYLETHYL" "(W)" "PHENYL" "(W)" "PROPYL" "(W)" "THIO" "(W)" "METHYL" "(W)" "CYCLOPROPANE" "(W)" "ACETIC" "(W)" "ACID")

=> shr05/00005

SHR05 IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (>).

=> s hr05/00005

10/587537

'00005' IS NOT A VALID FIELD CODE  
L9 0 HR05/00005

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L10 0 20070225325

=> file uspatfull	COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST		55.48	278.10
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)		SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE		0.00	-4.00

FILE 'USPATFULL' ENTERED AT 10:34:52 ON 19 APR 2010  
CA INDEXING COPYRIGHT (C) 2010 AMERICAN CHEMICAL SOCIETY (ACS)

FILE COVERS 1971 TO PATENT PUBLICATION DATE: 15 Apr 2010 (20100415/PD)  
FILE LAST UPDATED: 15 Apr 2010 (20100415/ED)  
HIGHEST GRANTED PATENT NUMBER: US7698747  
HIGHEST APPLICATION PUBLICATION NUMBER: US20100095420  
CA INDEXING IS CURRENT THROUGH 15 Apr 2010 (20100415/UPCA)  
ISSUE CLASS FIELDS (/INCL) CURRENT THROUGH: 15 Apr 2010 (20100415/PD)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

USPATFULL now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2009.

To ensure comprehensive retrieval of US patent information, including US patent application information, search USPATFULL in combination with USPAT2.

=> s 20070225325  
L11 0 20070225325

=> s solid forms of montelukast ackd  
1495856 SOLID  
2264471 FORMS  
2310 MONTELUKAST  
73 ACKD  
L12 0 SOLID FORMS OF MONTELUKAST ACKD  
(SOLID(W)FORMS(1W)MONTELUKAST(W)ACKD)

=> s solid forms of montelukast acid  
1495856 SOLID  
2264471 FORMS  
2310 MONTELUKAST  
1087999 ACID  
L13 1 SOLID FORMS OF MONTELUKAST ACID  
(SOLID(W)FORMS(1W)MONTELUKAST(W)ACID)

=> d

L13 ANSWER 1 OF 1 USPATFULL on STN  
AN 2007:257380 USPATFULL

TI Solid Forms of Montelukast Acid  
 IN Mestrovic, Ernest, Bjelovar, CROATIA  
 Horvat, Michaela, Sesvete, CROATIA  
 Devcic, Maja, Pozega, CROATIA  
 Avdagic, Amir, Zagreb, CROATIA  
 Cincic, Dominik, Zagreb, CROATIA  
 Marinkovic, Marina, Sesvete, CROATIA  
 PA PLIVA-ISTRAZIVANJE I RAZVOJ D.O.O., Zagreb, CROATIA (non-U.S.  
     corporation)  
 PI US 20070225325        A1 20070927  
 AI US 2005-587537        A1 20050119 (10)  
     WO 2005-HR5            20050119  
                           20070607 PCT 371 date  
 PRAI US 2004-540307P     20040128 (60)  
 DT Utility  
 FS APPLICATION  
 LN.CNT 666  
 INCL INCLM: 514/311.000  
      INCLS: 546/180.000  
 NCL NCLM: 514/311.000  
      NCLS: 546/180.000  
 IC IPCI C07D0215-00 [I,A]  
      IPCR C07D0215-00 [I,C]; C07D0215-00 [I,A]  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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FULL ESTIMATED COST	ENTRY	SESSION	
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CA SUBSCRIBER PRICE	ENTRY	SESSION	
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FILE COVERS 1907 - 15 Apr 2010 VOL 152 ISS 17  
 FILE LAST UPDATED: 15 Apr 2010 (20100415/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

CA now includes complete International Patent Classification (IPC)

10/587537

reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

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    4930804 ACID
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L15        0 US 20070225325
            (US(W)20070225325)

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L17        95 MESTROVIC?/AU

=> s l17 and horvat?/au
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L18        5 L17 AND HORVAT?/AU

=> d ibib 1-5

L18 ANSWER 1 OF 5 CA COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 151:187935 CA
TITLE: Structural, Spectroscopic and Thermal Characterisation
of bis (dibenzoylmethanato)Cd(II) Adducts with
Dimethylsulfoxide and Water
AUTHOR(S): Halasz, Ivan; Horvat, Michaela; Biljan,
Tomislav; Mestrovic, Ernest
CORPORATE SOURCE: Chemistry Department, Faculty of Science, University
of Zagreb, Zagreb, 10000, Croatia
SOURCE: Journal of Chemical Crystallography (2008), 38(10),
793-800
CODEN: JCCYEV; ISSN: 1074-1542
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 151:187935
OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD
                    (1 CITINGS)
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS
                  RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 5 CA COPYRIGHT 2010 ACS on STN
```

ACCESSION NUMBER: 144:474927 CA  
 TITLE: Crystal form of celecoxib  
 INVENTOR(S): Mestrovic, Ernest; Horvat, Michaela  
               ; Kwokal, Ana; Devcic, Maja; Filic, Darko; Danilovski,  
               Aleksandar; Cetina-Cizmek, Biserka; Mundorfer, Tina  
 PATENT ASSIGNEE(S): Pliva - Istrazivanje I Razvoj d.o.o., Croatia  
 SOURCE: PCT Int. Appl., 33 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006051340	A1	20060518	WO 2005-HR41	20050721
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, NZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
CA 2574326	A1	20060518	CA 2005-2574326	20050721
EP 1768961	A1	20070404	EP 2005-826859	20050721
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU				
PRIORITY APPLN. INFO.:			US 2004-590827P WO 2005-HR41	P 20040722 W 20050721
REFERENCE COUNT:	5	THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT		

L18 ANSWER 3 OF 5 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 143:292196 CA  
 TITLE: An investigation into the thermal behavior of a model  
       drug mixture with amorphous trehalose  
 AUTHOR(S): Horvat, M.; Mestrovic, E.;  
               Danilovski, A.; Craig, D. Q. M.  
 CORPORATE SOURCE: PLIVA-Research and Development Ltd., Zagreb, HR-10000,  
               Croatia  
 SOURCE: International Journal of Pharmaceutics (2005),  
       294(1-2), 1-10  
 PUBLISHER: CODEN: IJPHDE, ISSN: 0378-5173  
 DOCUMENT TYPE: Elsevier B.V.  
 LANGUAGE: Journal  
 English  
 OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD  
               (4 CITINGS)  
 REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 5 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 143:199868 CA  
 TITLE: Solid forms of montelukast  
 INVENTOR(S): Mestrovic, Ernest; Horvat, Michaela  
                  ; Devcic, Maja; Avdagic, Amir; Cicic, Dominik;  
                  Marinkovic, Marina  
 PATENT ASSIGNEE(S): Pliva- Istrazivanje I Razvoj D.O.O., Croatia  
 SOURCE: PCT Int. Appl., 30 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005073194	A2	20050811	WO 2005-HR5	20050119
WO 2005073194	A3	20060504		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1709001	A2	20061011	EP 2005-702162	20050119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
US 20070225325	A1	20070927	US 2007-587537	20070607
PRIORITY APPLN. INFO.:			US 2004-540307P	P 20040128
			WO 2005-HR5	W 20050119

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
 (1 CITINGS)  
 REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 5 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 136:374675 CA  
 TITLE: Thermal behavior of diclofenac sodium: decomposition  
        and melting characteristics  
 AUTHOR(S): Tudja, Petar; Khan, M. Zahirul I.; Mestrovic,  
                  Ernest; Horvat, Michaela; Golja, Petra  
 CORPORATE SOURCE: Department of Pharmaceutical Technology, Research and  
        Development, PLIVA d.d., Zagreb, 10000, Croatia  
 SOURCE: Chemical & Pharmaceutical Bulletin (2001), 49(10),  
        1245-1250  
 CODEN: CPBTAL; ISSN: 0009-2363  
 PUBLISHER: Pharmaceutical Society of Japan  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OS.CITING REF COUNT: 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS

REFERENCE COUNT: 10 RECORD (12 CITINGS)  
THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT.

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L18 ANSWER 4 OF 5 CA COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 143:199868 CA  
TITLE: Solid forms of montelukast  
INVENTOR(S): Mestrovic, Ernest; Horvat, Michaela;  
; Devcic, Maja; Avdagic, Amir; Ciccic, Dominik;  
Marinkovic, Marina  
PATENT ASSIGNEE(S): Pliva- Istrazivanje I Razvoj D.O.O., Croatia  
SOURCE: PCT Int. Appl., 30 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005073194	A2	20050811	WO 2005-HR5	20050119
WO 2005073194	A3	20060504		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM				
RW: BW, GH, GM, KE, LS, MK, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1709001	A2	20061011	EP 2005-702162	20050119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
US 20070225325	A1	20070927	US 2007-587537 US 2004-540307P WO 2005-HR5	20070607 P 20040128 W 20050119
RITY APPLN. INFO.:				

ASSIGNMENT HISTORY FOR U.S. PATENT AVAILABLE IN LSUS DISPLAY FORMAT

**AB** The present invention relates to a new crystalline form and new amorphous forms of montelukast acid, to a process for their preparation, to pharmaceutical formulations containing them. Montelukast was prepared by the treatment of its sodium salt with a citric acid buffer. A crystalline form of the acid was obtained which was characterized by x-ray crystallog.

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS  
RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

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E1 THROUGH E12 ASSIGNED

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FULL ESTIMATED COST	31.71	312.50	
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DICTIONARY FILE UPDATES: 18 APR 2010 HIGHEST RN 1219538-51-8

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<http://www.cas.org/support/stngen/stndoc/properties.html>

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 1 120-46-7/BI
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 1 15362-40-0/BI
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 1 158966-92-8/BI
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 1 169590-42-5/BI
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 1 329900-75-6/BI
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 1 6138-23-4/BI
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FILE COVERS 1907 - 15 Apr 2010 VOL 152 ISS 17  
 FILE LAST UPDATED: 15 Apr 2010 (20100415/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

CA now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

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**CA SUBSCRIBER PRICE**

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FILE 'REGISTRY' ENTERED AT 10:38:52 ON 19 APR 2010  
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STRUCTURE FILE UPDATES: 18 APR 2010 HIGHEST RN 1219538-51-8  
DICTIONARY FILE UPDATES: 18 APR 2010 HIGHEST RN 1219538-51-8

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TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

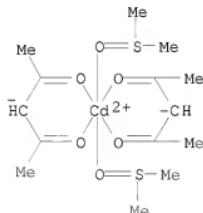
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

=> d 119

L19 ANSWER 1 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 1173658-29-1 REGISTRY  
ED Entered STN: 09 Aug 2009  
CN Cadmium, bis(2,4-pentanedionato- $\kappa$ O<sub>2</sub>, $\kappa$ O<sub>4</sub>)bis[1,1'-(sulfinyl- $\kappa$ O)<sub>2</sub>bis[methane]]-, (OC-6-22)- (CA INDEX NAME)  
MF C14 H26 Cd O6 S2  
CI CCS  
SR CA  
LC STN Files: CA, CAPLUS, CASREACT

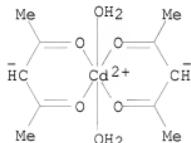


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 2 119

L19 ANSWER 2 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 1173658-28-0 REGISTRY  
 ED Entered STN: 09 Aug 2009  
 CN Cadmium, diaquaabis(2,4-pentanedionato- $\kappa$ O2, $\kappa$ O4)- (CA INDEX NAME)  
 MF C10 H18 Cd O6  
 CI CCS  
 SR CA  
 LC STN Files: CA, CAPLUS, CASREACT



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

1 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> d 3-12 119

L19 ANSWER 3 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 329900-75-6 REGISTRY  
 ED Entered STN: 04 Apr 2001  
 CN Synthetase, prostaglandin endoperoxide, 2 (CA INDEX NAME)  
 OTHER NAMES:  
 CN Arachidonate cyclooxygenase 2  
 CN COX 2  
 CN COX-2  
 CN COX2  
 CN Cyclooxygenase 2  
 CN Cyclooxygenase II  
 CN Prostaglandin endoperoxidase synthase 2  
 CN Prostaglandin endoperoxide H synthase-2  
 CN Prostaglandin endoperoxide synthase-2  
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 CN Prostaglandin G/H synthase-2  
 CN Prostaglandin H synthase-2  
 MF Unspecified  
 CI MAN  
 SR CA

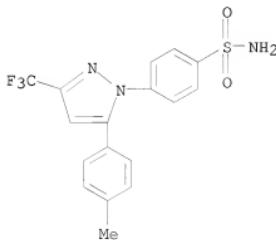
LC STN Files: BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, TOXCENTER, USPAT2,  
USPATFULL

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

17870 REFERENCES IN FILE CA (1907 TO DATE)  
19 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
18004 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 4 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 169590-42-5 REGISTRY  
 ED Entered STN: 02 Nov 1995  
 CN Benzenesulfonamide, 4-[5-(4-methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (CA INDEX NAME)  
 OTHER NAMES:  
 CN 4-[5-(4-Methylphenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzenesulfonamide  
 CN Celebra  
 CN Celebrex  
 CN Celecox  
 CN Celecoxib  
 CN Celcoxib  
 CN Eurocox  
 CN Medicoxib  
 CN SC 58635  
 CN Xilebao  
 CN YM 177  
 DR 184007-95-2, 194044-54-7  
 MF C17 H14 F3 N3 O2 S  
 CI COM  
 SR US Adopted Names Council (USAN)  
 LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO,  
 CA, CABBA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, DDFU,  
 DRUGU, EMBASE, HSDB\*, IMSDRUGNEWS, IMSPATENTS, IMSPRODUCT, IMSRESEARCH,  
 IPA, MEDLINE, MRCK\*, MSDS-OHS, PATDPASPC, PROMT, PROUSDDR, PS, RTECS\*,  
 SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)

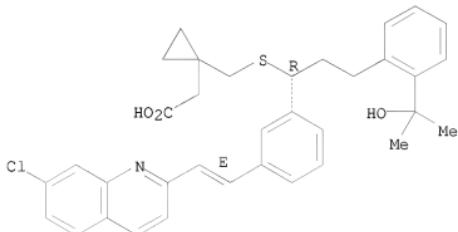


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3889 REFERENCES IN FILE CA (1907 TO DATE)  
 87 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3926 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 5 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 158966-92-8 REGISTRY  
 ED Entered STN: 15 Nov 1994  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Cyclopropaneacetic acid, 1-[(1-[3-[2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]-, [R-(E)]-  
 OTHER NAMES:  
 CN 1-[(1(R)-1-[3-((E)-2-(7-Chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropaneacetic acid  
 CN 2-1-[(1(R)-1-[3-((1E)-2-(7-Chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropyl]acetic acid  
 CN Montelukast  
 CN 1-[(1(R)-1-[3-((E)-2-(7-Chloroquinolin-2-yl)vinyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl)sulfanyl]methyl)cyclopropyl]acetic acid  
 FS STEREOSEARCH  
 MF C35 H36 Cl N O3 S  
 CI COM  
 SR World Health Organization (WHO)  
 LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, BIOSIS, BIOTECHNO, CA,  
 CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CIN, DDFU, DRUGU, EMBASE, HSDB\*,  
 IMSDRUGNEWS, IMPATENTS, IMSPRODUCT, IMSRESEARCH, IPA, MEDLINE, MRCK\*,  
 PATDPASPC, PROMT, PROUSDDR, PS, RTECS\*, SYNTHLINE, TOXCENTER, USAN,  
 USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 Other Sources: WHO

Absolute stereochemistry.  
 Double bond geometry as shown.

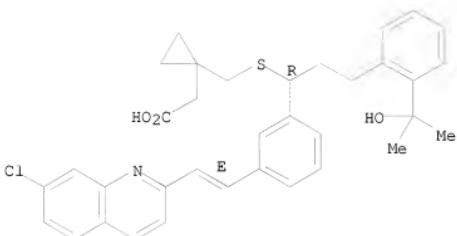


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 21 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 852 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 6 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 151767-02-1 REGISTRY  
 ED Entered STN: 16 Dec 1993  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl], sodium salt (1:1) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl], monosodium salt (9CI)  
 CN Cyclopropaneacetic acid, 1-[(1-[3-[2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl], monosodium salt, [R-(E)]-  
 OTHER NAMES:  
 CN 1-[(1R)-1-[3-((E)-2-(7-Chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropaneacetic acid sodium salt  
 CN 2-[1-[(1R)-1-[3-((1E)-2-(7-Chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl)cyclopropyl]acetic acid sodium salt  
 CN MK 476  
 CN Momazol  
 CN Montair  
 CN Montelukast monosodium salt  
 CN Montelukast sodium  
 CN Shantroz  
 CN Singulair  
 CN Sodium 2-[1-[(1R)-1-[3-((E)-2-(7-chloroquinolin-2-yl)vinyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]sulfanyl)methyl)cyclopropyl]acetate  
 CN Sodium montelukast  
 FS STREOSEARCH  
 MF C35 H36 Cl N O3 S . Na  
 CI COM  
 SR US Adopted Names Council (USAN)  
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, EMBASE, HSDB\*, IMSPATENTS, IMSRESEARCH, IPA, MRCK\*, PATOPASC, PROMT, PROUSSDR, PS, RTECS\*, SYNTHLINE, TOXCENTER, USAN, USPAT2, USPATFULL  
 (\*File contains numerically searchable property data)  
 CRN (158966-92-8)

Absolute stereochemistry.  
 Double bond geometry as shown.

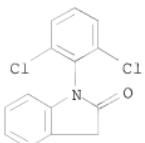


● Na

## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

316 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 320 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 7 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 15362-40-0 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN 2H-Indol-2-one, 1-(2,6-dichlorophenyl)-1,3-dihydro- (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN 2-Indolinone, 1-(2,6-dichlorophenyl)- (8CI)  
 OTHER NAMES:  
 CN 1-(2,6-Dichlorophenyl)-2-indolinone  
 CN 1-(2,6-Dichlorophenyl)oxindole  
 CN N-(2,6-Dichlorophenyl)-2-indolinone  
 CN NSC 621845  
 MF C14 H9 Cl2 N O  
 LC STN Files: ANABSTR, BEILSTEIN\*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS,  
 CHEMLIST, CSCHEM, IFICDB, IFIPAT, IFIUDB, RTECS\*, TOXCENTER, USPATFULL,  
 USPATOLD  
 (\*File contains numerically searchable property data)  
 Other Sources: EINECS\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

80 REFERENCES IN FILE CA (1907 TO DATE)  
81 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 8 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 15307-79-6 REGISTRY  
ED Entered STN: 16 Nov 1984  
CN Benzeneacetic acid, 2-[(2,6-dichlorophenyl)amino]-, sodium salt (1:1) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Acetic acid, [o-(2,6-dichloroanilino)phenyl]-, monosodium salt (8CI)  
CN Benzeneacetic acid, 2-[(2,6-dichlorophenyl)amino]-, monosodium salt (9CI)  
OTHER NAMES:  
CN 2-(2,6-Dichloroanilino)phenylacetic acid sodium salt  
CN Abitren  
CN Allvoran  
CN Assaren  
CN Benfofen  
CN Declophen  
CN Dedolor  
CN Deflamat  
CN Delphimix  
CN Diachron  
CN Dichronic  
CN Diclo-Phlogont  
CN Diclo-Puren  
CN Diclobene  
CN Diclobenin  
CN Dicloberl  
CN Dicloberl Retard  
CN Diclodyn  
CN Diclofen SR 100  
CN Diclofenac retard  
CN Diclofenac sodium  
CN Diclofenac sodium salt  
CN Diclofenac-Na Emulgel  
CN Diclofenacsodium Emulgel  
CN Dicloflex  
CN Diclokalium  
CN Diclon  
CN Diclophenac sodium  
CN Dicloran CP  
CN Dicloran Plus  
CN Diclord  
CN Diclorep  
CN Dicloreum  
CN diclotard  
CN Diklovit  
CN Dolobasan  
CN Duravolten  
CN Dyclo  
CN Dyloject  
CN Effekton  
CN Evofenac

CN Feloran  
 CN Fortfen  
 CN GP 45840  
 CN Hyanalgesic D  
 CN Inflaban  
 CN Kriplex  
 CN Modifenac

ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT - Use FCN, FIDE, or ALL for DISPLAY

DR 1147187-62-9

MF C14 H11 Cl2 N O2 . Na

CI COM

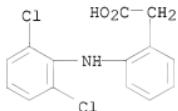
LC STN Files: ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSChem, CSNB, DDFU, DRUGU, EMBASE, HSDB\*, IFICDB, IFIPAT, IFIUDB, IMSPATENTS, IMSRESEARCH, IPA, MEDLINE, MRCK\*, MSDS-OHS, PATDPASPC, PIRA, PROMT, PROUSEDDR, PS, RTECS\*, TOXCENTER, ULIDAT, USAN, USPAT2, USPATFULL, USPATOLD

(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*

(\*\*Enter CHEMLIST File for up-to-date regulatory information)

CRN (15307-86-5)



● Na

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3251 REFERENCES IN FILE CA (1907 TO DATE)

29 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

3262 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 9 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 7727-37-9 REGISTRY

ED Entered STN: 16 Nov 1984  
 CN Nitrogen (CA INDEX NAME)

OTHER NAMES:

CN Diatomic nitrogen  
 CN Dinitrogen  
 CN Molecular nitrogen  
 CN Nitrogen (N2)  
 CN Nitrogen gas  
 CN Nitrogen nutrition (plant)  
 CN Nitrogen-14

DR 778548-56-4, 882528-56-5, 951778-24-8, 745765-07-5, 794449-54-0,  
 1119449-41-0, 161728-27-4, 156457-45-3, 93037-13-9, 263005-65-8

MF N2  
CI COM  
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA,  
CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN,  
CSCHEM, CSNB, DDFU, DETHERM\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,  
ENCOMPAT, ENCOMPAT2, GMELIN\*, HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA,  
MEDLINE, MRCK\*, MSDS-OHS, PIRA, PROMT, RTECS\*, SPECINFO, TOXCENTER,  
TULSA, ULIDAT, USAN, USPAT2, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

N

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

370924 REFERENCES IN FILE CA (1907 TO DATE)  
14984 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
372293 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 10 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
RN 7440-59-7 REGISTRY

ED Entered STN: 16 Nov 1984  
CN Helium (CA INDEX NAME)

OTHER NAMES:

CN Atomic helium

CN Helium-4

CN o-Helium

CN p-Helium

DR 494798-31-1

MF He

CI COM

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CABA,  
CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB, DDFU,  
DETERM\*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPAT, ENCOMPAT2,  
HSDB\*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK\*, MSDS-OHS, PIRA,  
PROMT, RTECS\*, TOXCENTER, TULSA, USAN, USPAT2, USPATFULL, USPATOLD  
(\*File contains numerically searchable property data)

Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)

He

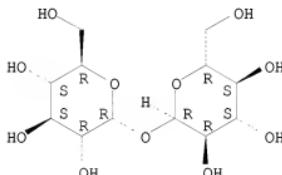
\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

127416 REFERENCES IN FILE CA (1907 TO DATE)  
4813 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
127878 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 11 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN

RN 6138-23-4 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN  $\alpha$ -D-Glucopyranoside,  $\alpha$ -D-glucopyranosyl, hydrate (1:2) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN  $\alpha$ -D-Glucopyranoside,  $\alpha$ -D-glucopyranosyl, dihydrate (9CI)  
 CN Trehalose, dihydrate (8CI)  
 OTHER NAMES:  
 CN  $\alpha, \alpha$ -Trehalose dihydrate  
 CN  $\alpha$ -D-Glucopyranosyl  $\alpha$ -D-glucopyranoside dihydrate  
 CN D-(+)-Trehalose dihydrate  
 FS STEREOSEARCH  
 DR 219843-81-9  
 MF C12 H22 O11 . 2 H2O  
 CI COM  
 LC STN Files: BEILSTEIN\*, BIOSIS, CA, CAPLUS, CASREACT, CHEMCATS, CHEMLIST, CSCHEM, DETHERM\*, IPA, MRCK\*, RTECS\*, TOXCENTER, USPAT2, USPATFULL  
     (\*File contains numerically searchable property data)  
 CRN (99-20-7)

Absolute stereochemistry. Rotation (+).



●2 H<sub>2</sub>O

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

217 REFERENCES IN FILE CA (1907 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 217 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L19 ANSWER 12 OF 12 REGISTRY COPYRIGHT 2010 ACS on STN  
 RN 120-46-7 REGISTRY  
 ED Entered STN: 16 Nov 1984  
 CN 1,3-Propanedione, 1,3-diphenyl- (CA INDEX NAME)  
 OTHER NAMES:  
 CN  $\omega$ -Benzoylacetophenone  
 CN 1,3-Diphenyl-1,3-propanedione  
 CN 2-Benzoylacetophenone  
 CN AD 158  
 CN DBM

CN Dibenzoylmethane  
 CN Karenz DK 2  
 CN NSC 406806  
 CN NSC 52984  
 CN NSC 6266  
 CN Phenyl phenacyl ketone  
 CN Rhodiastab 83  
 DR 61346-73-4  
 MF C15 H12 O2  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BEILSTEIN\*, BIOSIS, BIOTECHNO, CA, CAPLUS,  
 CASREACT, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHEM, DETERM\*,  
 EMBASE, GMELIN\*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK\*, MSDS-OHS, PIRA,  
 PROMT, RTECS\*, SPECINFO, TOXCENTER, USPAT2, USPATFULL, USPATOLD  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



## \*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

3973 REFERENCES IN FILE CA (1907 TO DATE)  
 712 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 3987 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=&gt; d his

(FILE 'HOME' ENTERED AT 10:17:37 ON 19 APR 2010)

FILE 'REGISTRY' ENTERED AT 10:17:46 ON 19 APR 2010

L1 8 S MONTELUKAST  
 L2 1 S 158966-92-8/RN

FILE 'CA' ENTERED AT 10:22:29 ON 19 APR 2010

L3 849 S L2  
 L4 5 S L2 AND CRYSTALLINE  
 L5 0 S MONTELUKAST ACETIC ACID

FILE 'REGISTRY' ENTERED AT 10:31:48 ON 19 APR 2010

L6 0 S MONTELUKAST ACETIC ACID  
 L7 0 S "1-((1(R)-(3-(2-(7-CHLORO-2-QUINOLINYL)THENYL)-PHENYL)-3-(2-

FILE 'CA' ENTERED AT 10:33:42 ON 19 APR 2010

L8 0 S "1-((1(R)-(3-(2-(7-CHLORO-2-QUINOLINYL)THENYL)-PHENYL)-3-(2-  
 L9 0 S HR05/00005  
 L10 0 S 20070225325

FILE 'USPATFULL' ENTERED AT 10:34:52 ON 19 APR 2010

L11            0 S 20070225325  
 L12            0 S SOLID FORMS OF MONTELUKAST ACKD  
 L13            1 S SOLID FORMS OF MONTELUKAST ACID

FILE 'CA' ENTERED AT 10:35:22 ON 19 APR 2010  
 L14            0 S L13  
 L15            0 S US 20070225325  
 L16            0 S MESTROVIC/AU  
 L17            95 S MESTROVIC?/AU  
 L18            5 S L17 AND HORVAT?/AU  
 SEL RN

FILE 'REGISTRY' ENTERED AT 10:38:20 ON 19 APR 2010  
 L19            12 S E1-E12

FILE 'CA' ENTERED AT 10:38:43 ON 19 APR 2010  
 L20            505232 S L19

FILE 'REGISTRY' ENTERED AT 10:38:52 ON 19 APR 2010

=> s l3 and amorphphous  
       0 AMORPHPHOUS  
 L21            0 L3 AND AMORPHPHOUS

=> s amorphous and l3  
       21 AMORPHOUS  
 L22            0 AMORPHOUS AND L3

=> s "form i" and l3  
       517843 "FORM"  
       652373 "I"  
       1304 "FORM I"  
             ("FORM"(W)"I")  
 L23            0 "FORM I" AND L3

=> file ca			
COST IN U.S. DOLLARS	SINCE FILE	TOTAL	
FULL ESTIMATED COST	ENTRY	SESSION	
	50.14	363.62	
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL	
CA SUBSCRIBER PRICE	ENTRY	SESSION	
	0.00	-4.80	

FILE 'CA' ENTERED AT 10:42:43 ON 19 APR 2010  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 15 Apr 2010 VOL 152 ISS 17  
FILE LAST UPDATED: 15 Apr 2010 (20100415/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2010  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2010

CA now includes complete International Patent Classification (IPC) reclassification data for the first quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s amorphous and 13  
          299887 AMORPHOUS  
L24          13 AMORPHOUS AND L3  
  
=> s crystalline and 13  
          91832 CRYSTALLINE  
L25          5 CRYSTALLINE AND L3  
  
=> s l24 or l25  
L26          15 L24 OR L25  
  
=> d ibib abs hitstr 1-15  
  
L26 ANSWER 1 OF 15 CA COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 151:381196 CA  
TITLE: Process for preparation of montelukast and removal of impurities  
INVENTOR(S): Halama, Ales; Bouskova, Olga; Gibala, Petr; Jirman, Josef  
PATENT ASSIGNEE(S): Zentiva, K.S., Czech Rep.  
SOURCE: PCT Int. Appl., 44pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009111998	A2	20090917	WO 2009-CZ38	20090311
WO 2009111998	A3	20100325		
W:	AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SI, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW			
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,			

IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI,  
 SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN,  
 TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,  
 ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: CZ 2008-167 A 20080314

AB The present invention pertains to a process for the preparation of montelukast and the removal of specific impurities, which are decomposition products of montelukast and byproducts from preparation process. For example, montelukast sodium (preparation given) contaminated by impurities was dissolved in toluene, washed with 0.5 M tartaric acid, water, and the obtained toluene solution was dried over sodium sulfate. The desiccant was filtered off and iso-propylamine in heptane was added to the filtrate. After 1 h of stirring, more heptane was added to the separated suspension, and the stirring was continued for 1 h, then filtration was performed, and the cake was washed with heptane, vacuum dried at room temperature to afford salt of montelukast with iso-propylamine, which can be purified by crystn. from isopropanol. The crystalline salt of montelukast with iso-propylamine in toluene was treated with sodium tert-butoxide at 30 - 35 °C for 45 min, then filtration was performed and the clear filtrate was added dropwise to intensively stirred heptane. The obtained suspension was stirred for another hour and then subjected to filtration and vacuum drying to give pure montelukast sodium as an amorphous powder.

IT 158966-92-8, Montelukast

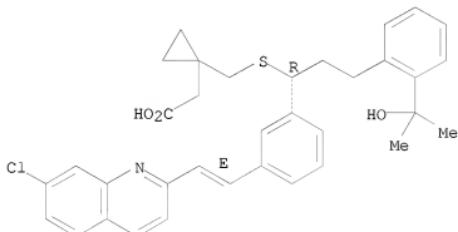
RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of montelukast and removal of impurities)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
 (1 CITINGS)

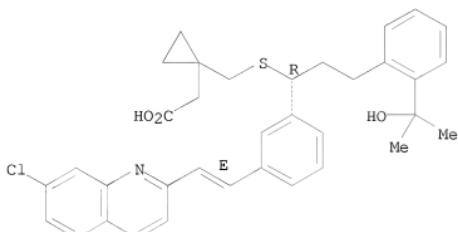
L26 ANSWER 2 OF 15 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 150:501196 CA  
 TITLE: Novel crystalline salts of montelukast  
 INVENTOR(S): O'Shea, Paul  
 PATENT ASSIGNEE(S): Merck Frosst Canada Ltd., Can.  
 SOURCE: PCT Int. Appl., 31pp.

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009052625	A1	20090430	WO 2008-CA1875	20081023
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW, RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

PRIORITY APPLN. INFO.: US 2007-342P P 20071025  
 AB The present application relates to crystalline 1,2-ethanedisulfonic acid salt and N,N'-dibenzylethylenediamine salt of montelukast. The salts are useful as therapeutic agents for the treatment of leukotriene mediated diseases and disorders. This application also relates to processes and intermediates for preparing the said salts and pharmaceutical compns. comprising the salts and optionally other therapeutic agents.  
 IT 158966-92-8, Montelukast  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (novel crystalline salts of montelukast)  
 RN 158966-92-8 CA  
 CN Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



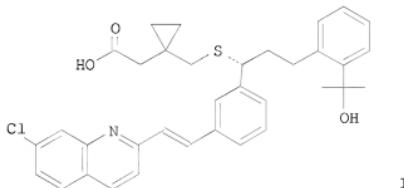
REFERENCE COUNT:

4

THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 3 OF 15 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 150:501152 CA  
 TITLE: Crystalline montelukast cyclopropylamine salt for preparation of pure amorphous sodium salt  
 INVENTOR(S): Huguet Clotet, Juan; Peirats Masia, Jordi  
 PATENT ASSIGNEE(S): Inke, S.A., Spain  
 SOURCE: PCT Int. Appl., 29pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009053424	A1	20090430	WO 2008-EP64345	20081023
WO 2009053424	A9	20090806		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 2053043	A1	20090429	EP 2007-380294	20071026
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
PRIORITY APPLN. INFO.: EP 2007-380294			A 20071026	
OTHER SOURCE(S): CASREACT 150:501152; MARPAT 150:501152				
GI				



AB The present invention refers to the novel cyclopropylamine salt of montelukast (I) in crystalline form and its use in the process for the preparation of highly pure amorphous montelukast sodium. I is prepared from

[1-[1-(R)-(3-bromophenyl)-3-[2-(1-hydroxy-1-methylethyl)phenyl]propylsulfanyl]cyclopropyl]acetic acid and 7-chloro-2-vinylquinoline. I is treated with cyclopropylamine to give a polymorphic form and this is converted to the sodium salt.

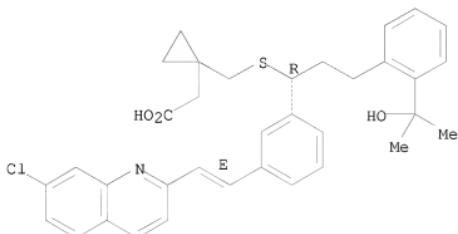
IT 158966-92-8P, Montelukast

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (crystalline montelukast cyclopropylamine salt for preparation of pure amorphous sodium salt)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 4 OF 15 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 150:456452 CA

TITLE: Crystalline montelukast cyclopropylamine salt for preparation of pure amorphous sodium salt

INVENTOR(S): Huguet Clotet, Joan; Peirats Masia, Jordi

PATENT ASSIGNEE(S): Inke, S.A., Spain

SOURCE: Eur. Pat. Appl., 17pp.

DOCUMENT TYPE: CODEN: EPXXDW

LANGUAGE: Patent

FAMILY ACC. NUM. COUNT: English

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 2053043	A1	20090429	EP 2007-380294	20071026
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
US 20090111849	A1	20090430	US 2007-965730	20071227
WO 2009053424	A1	20090430	WO 2008-EP64345	20081023

WO 2009053424 A9 20090806  
 W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,  
 CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES,  
 FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE,  
 KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD,  
 ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH,  
 PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ,  
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,  
 IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK,  
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,  
 TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRIORITY APPLN. INFO.: EP 2007-380294 A 20071026

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention refers to the novel cyclopropylamine salt of montelukast (I) in crystalline form and its use in the process for the preparation

of highly pure amorphous montelukast sodium. I is prepared from [1-[1-(R)-(3-bromophenyl)-3-[2-(1-hydroxy-1-methylethyl)phenyl]propylsulfanyl methyl]cyclopropyl]acetic acid and 7-chloro-2-vinylquinoline. I is treated with cyclopropylamine to give a polymorphic form and this is converted to the sodium salt.

IT 158966-92-8P, Montelukast

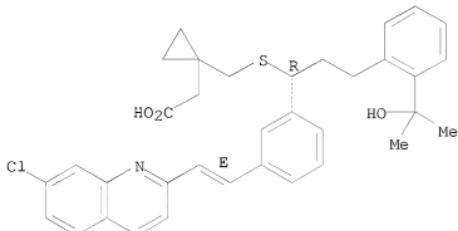
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (crystalline montelukast cyclopropylamine salt for preparation of pure amorphous sodium salt)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 5 OF 15 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 150:129333 CA

TITLE: A method for isolation and purification of montelukast

for treatment of asthma and allergies  
INVENTOR(S): Halama, Ales; Jirman, Josef; Petrickova, Hana  
PATENT ASSIGNEE(S): Zentiva, A. S., Czech Rep.  
SOURCE: PCT Int. Appl., 25pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2009006861	A2	20090115	WO 2008-CZ81	20080708
WO 2009006861	A3	20090522		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SI, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 2173718	A2	20100414	EP 2008-784159	20080708
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR				
PRIORITY APPLN. INFO.:			CZ 2007-455 WO 2008-CZ81	A 20070709 W 20080708

OTHER SOURCE(S): CASREACT 150:129333

AB A method of isolation of montelukast from reaction mixts. is provided, comprising conversion of the crude substance to well-crystallizing salts with primary amines in the environment of at least one organic solvent and acetonitrile, followed by re-crystallization of these salts with simultaneous removal of chemical impurities and use of the CP salts of montelukast with primary amines for direct transformation to the pharmaceutically useful amorphous form of montelukast sodium for the preparation of a composition for treatment of asthma and allergies. Thus, a crude montelukast sodium was prepared from a reaction mixture containing 6.62 g of [1-(mercaptoethyl)cyclopropyl]acetic acid, a base (8.50 g of sodium tert-butoxide), 26 mL of PEG-600 and 26 g of 2-[3-(S)-[3-[2-(7-chloroquinolinyl)ethenyl]phenyl]-3-methanesulfonyloxypropyl]phenyl-2-propanol in toluene at -10° (yield 85.7%). The crude product was treated with isopropylamine using acetonitrile and heptane resulting in montelukast isopropylamine (yield 75%, HPLC purity 93.5%).

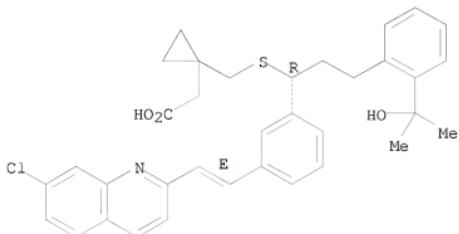
IT 158966-92-8P, Montelukast

RL: IMF (Industrial manufacture); PRP (Properties); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(isolation and purification of montelukast and sodium salt through conversion to and crystallization of salts with primary amines for treatment of asthma and allergies)

RN 158966-92-8 CA  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

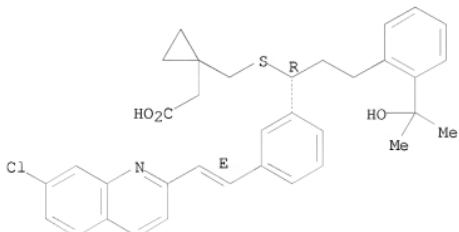


IT 158966-92-8DP, Montelukast, salts with alkali metals or primary amines

RL: IMF (Industrial manufacture); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (isolation and purification of montelukast and sodium salt through conversion to and crystallization of salts with primary amines for treatment of asthma and allergies)

RN 158966-92-8 CA  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
 (1 CITINGS)

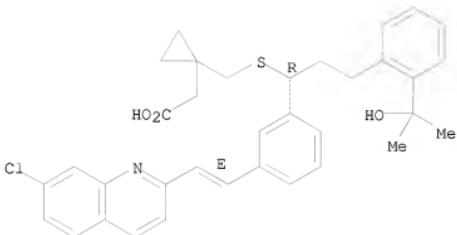
L26 ANSWER 6 OF 15 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 149:582517 CA  
 TITLE: Solid dosage forms of pharmaceutical carriers  
 INVENTOR(S): Cengic, Dzenana; Darmuzey, Olivia; Macleod, Graeme  
 PATENT ASSIGNEE(S): FMC Corporation, USA  
 SOURCE: PCT Int. Appl., 43pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008140460	A1	20081120	WO 2007-US11762	20070516

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB,  
 GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM,  
 KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LY, MA, MD, ME, MG,  
 MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT,  
 RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, IJ, TM, TN, TR,  
 TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,  
 IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,  
 BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,  
 GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,  
 BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: WO 2007-US11762 20070516  
 AB A solid form comprising at least one film enrobing a compacted fill  
 material having at least one active material contained in a matrix and  
 having low friability, a d. of at least 0.5 g/mL based on the total solid  
 volume of the solid form and a tensile strength less than 0.9 MPa and which  
 exhibits a controlled release profile for release of the active material.  
 Zero order release may be achieved.  
 IT 158966-92-8, Montelukast  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (solid dosage forms of pharmaceutical carriers)  
 RN 158966-92-8 CA  
 CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-  
 quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-  
 methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 7 OF 15 CA COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 149:556455 CA

TITLE: Process for the preparation of amorphous Montelukast sodium salt wherein crystalline forms of methanesulfonate intermediate and Montelukast are not isolated.

INVENTOR(S): Zyla, Daniel; Rynkiewicz, Robert; Krzyzanowski, Mariusz; Ramza, Jan

PATENT ASSIGNEE(S): Zaklad Farmaceutyczne Polpharma S. A., Pol.  
SOURCE: PCT Int. Appl., 22pp.

CODEN: PIXX02

DOCUMENT TYPE: Patent  
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008136693	A2	20081113	WO 2008-PL33	20080430
WO 2008136693	A3	20081231		
W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
EP 2142508	A2	20100113	EP 2008-741772	20080430
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LI, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR				

US 20100069641	A1	20100318	US 2009-597746	20091026
IN 2009KN04035	A	20100319	IN 2009-KN4035	20091120
CN 101679268	A	20100324	CN 2008-80017789	20091127
PRIORITY APPLN. INFO.:			PL 2007-382346	A 20070502
			WO 2008-PL33	W 20080430

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 149:556455

AB Amorphous Montelukast sodium was prepared by (1) reaction of 2-[2-(3S)-{3-[2-(7-chloro-2-quinolinyl)ethenyl]phenyl}-3-(hydroxypropyl)phenyl]-2-propanol with MesO<sub>2</sub>Cl in the presence of a tertiary amine, (2) filtration of precipitated tertiary amine salt and reaction of the crude methanesulfonate ester with [1-(mercaptopethyl)cyclopropyl]acetic acid disodium salt, (3) isolation of crystalline 1-[[[(1R)-{3-[2-(7-chloro-2-quinolinyl)ethenyl]phenyl}-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]sulfanyl]methyl]cyclopropaneacetic acid tert-butylamine salt, (4) purification of this salt until the product has high pharmaceutical purity, and (5) conversion of the purified salt to the title compound

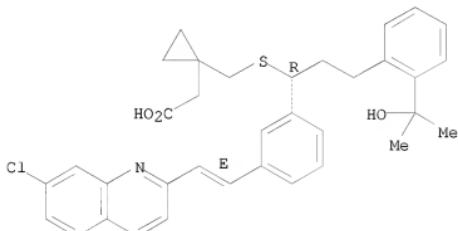
IT 158966-92-8P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (process for the preparation of amorphous Montelukast sodium salt  
 wherein crystalline forms of methanesulfonate intermediate and Montelukast are not isolated)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[(1R)-1-{3-[{(1E)-2-(7-chloro-2-quinolinyl)ethenyl}phenyl}-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl] - (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



L26 ANSWER 8 OF 15 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 146:169239 CA

TITLE: Preparation of montelukast

INVENTOR(S): Padi, Pratap Reddy; Bollikonda, Satyanarayana;  
 Srivastava, Alok Kumar; Kasturi, Ravi Kumar; Jinna,  
 Rajender Reddy; Mopidevi, Narasimha Naidu

PATENT ASSIGNEE(S): Dr. Reddy's Laboratories Ltd., India; Dr. Reddy's Laboratories, Inc.

SOURCE: PCT Int. Appl., 29pp.

CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007012075	A2	20070125	WO 2006-US28431	20060720
WO 2007012075	A3	20070927		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA				
AU 2006269861	A1	20070125	AU 2006-269861	20060720
CA 2616129	A1	20070125	CA 2006-2616129	20060720
EP 1912499	A2	20080423	EP 2006-788155	20060720
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, RS				
US 20080214823	A1	20080904	US 2008-996453	20080122
KR 2008033425	A	20080416	KR 2008-703923	20080219
PRIORITY APPLN. INFO.:				
			IN 2005-CH966	A 20050720
			US 2005-735267P	P 20051110
			IN 2006-CH455	A 20060314
			US 2006-806822P	P 20060710
			US 2004-566603P	P 20040430
			US 2004-584675P	P 20040702
			WO 2006-US28431	W 20060720

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

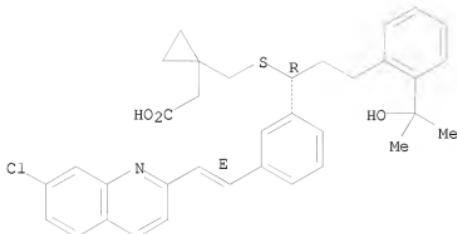
AB A process for preparing amorphous montelukast sodium comprises removing solvent from a solution comprising montelukast sodium using agitated thin film drying. Montelukast tertiary butylamine was reacted with sodium hydroxide to obtain montelukast sodium, yield=75.4%.

IT 158966-92-8P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of montelukast)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl] - (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



OS.CITING REF COUNT: 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD  
(2 CITINGS)

L26 ANSWER 9 OF 15 CA COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 144:488539 CA  
TITLE: Process for the preparation of amorphous montelukast sodium by the neutralization of montelukast free acid with sodium hydroxide followed by vacuum or spray drying  
INVENTOR(S): Chava, Satyanaryana; Gorantla, Seeta Ramanjaneyulu; Indukuri, Venkata, Sunil Kumar  
PATENT ASSIGNEE(S): Matrix Laboratories Ltd, India  
SOURCE: PCT Int. Appl., 12 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006054317	A1	20060526	WO 2005-IN366	20051111
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
IN 2004CHO1221	A	20061027	IN 2004-CH1221	20041119
EP 1831171	A1	20070912	EP 2005-823577	20051111
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 20080146809	A1	20080619	US 2007-794277 IN 2004-CH1221 WO 2005-IN366	20070622 A 20041119 W 20051111
PRIORITY APPLN. INFO.:				

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A process for the preparation of amorphous montelukast sodium is described which comprises dissolving montelukast free acid in an organic solvent, converting it into its sodium salt by neutralization of the free acid with sodium hydroxide, followed by vacuum drying or spray drying the solution. Alternatively the amorphous form may be prepared by the dissoln. of montelukast sodium in an organic solvent followed by vacuum drying or spray drying the solution.

IT 158966-92-8, Montelukast

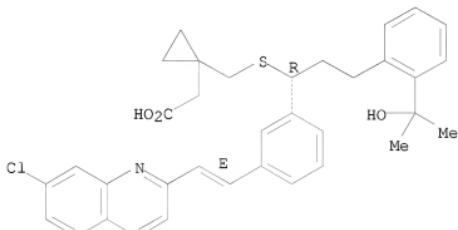
RL: RCT (Reactant); RACT (Reactant or reagent)  
(process for the preparation of amorphous montelukast sodium by the neutralization of montelukast free acid with sodium hydroxide followed by vacuum or spray drying)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-((1E)-2-(7-chloro-2-quinolinyl)ethenyl)phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 10 OF 15 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 144:40807 CA

TITLE: Process for preparation of amorphous form of a drug

INVENTOR(S): Szabo, Csaba; Szoke, Szabolcs; Gyuricza, Lorant;  
Singer, Claude

PATENT ASSIGNEE(S): Teva Gyogyszergyar Reszvenytarsasag, Hung.

SOURCE: U.S. Pat. Appl. Publ., 13 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 20050272768	A1	20051208	US 2005-143312	20050601
US 7589128	B2	20090915		
CA 2560984	A1	20051215	CA 2005-2560984	20050601
WO 2005117837	A1	20051215	WO 2005-US19485	20050601
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1641438	A1	20060405	EP 2005-758626	20050601
EP 1641438	B1	20100224		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
CN 1938005	A	20070328	CN 2005-80009910	20050601
JP 2008500405	T	20080110	JP 2007-527596	20050601
AT 458476	T	20100315	AT 2005-758626	20050601
IN 2006DN04990	A	20070713	IN 2006-DN4990	20060830
MX 2006010084	A	20070301	MX 2006-10084	20060904
KR 2006123772	A	20061204	KR 2006-718664	20060912
PRIORITY APPLN. INFO.:			US 2004-576216P	P 20040601
			US 2004-583778P	P 20040628
			US 2004-599700P	P 20040805
			WO 2005-US19485	W 20050601

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Provided is a process for preparation of amorphous form of an active pharmaceutical ingredient. Montelukast was treated with NaOH powder and acetone, and the product, the sodium salt, obtained was dissolved in acetone, and the product was characterized.

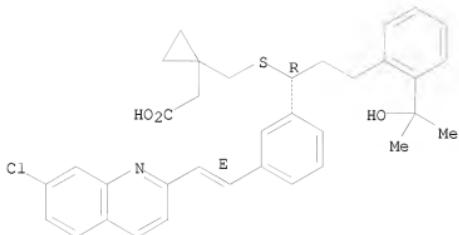
IT 158966-92-8, Montelukast

RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
(process for preparation of amorphous form of drugs)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl]-(CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD  
(3 CITINGS)

REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 11 OF 15 CA COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 143:235400 CA

TITLE: Montelukast free acid polymorphs

INVENTOR(S): Niddam-Hildesheim, Valerie; Aronhime, Judith; Chen, Kobi

PATENT ASSIGNEE(S): Teva Pharmaceutical Industries Ltd., Israel; Teva Pharmaceuticals USA, Inc.

SOURCE: PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005074935	A1	20050818	WO 2005-US2898	20050131
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KE, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2554572	A1	20050818	CA 2005-2554572	20050131
US 20050187243	A1	20050825	US 2005-48276	20050131
EP 1708708	A1	20061011	EP 2005-712362	20050131
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
EP 1760077	A1	20070307	EP 2005-112284	20050131
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA,				

HR, LV, MK, YU				
JP 2007518826	T	20070712	JP 2006-551524	20050131
CN 101005839	A	20070725	CN 2005-80010827	20050131
MX 2006008584	A	20070416	MX 2006-8584	20060728
IN 2006DN04489	A	20070824	IN 2006-DN4489	20060803
KR 2006117356	A	20061116	KR 2006-716358	20060814
PRIORITY APPLN. INFO.:				
US 2004-540840P P 20040130				
US 2004-582237P P 20040622				
EP 2005-712362 A3 20050131				
WO 2005-US2898 W 20050131				

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB The present invention relates to amorphous and polymorphic forms of montelukast free acid. Amorphous montelukast was prepared from its Na salt dissolved in water and treatment with HCl.

IT 158966-92-8, Montelukast

RL: FMU (Formation, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)

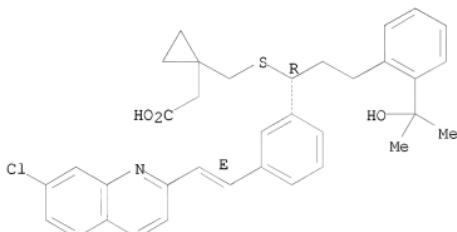
(montelukast free acid polymorphs)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinoliny)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl] - (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



OS.CITING REF COUNT:	4	THERE ARE 4 CAPLUS RECORDS THAT CITE THIS RECORD (4 CITINGS)
REFERENCE COUNT:	6	THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 12 OF 15	CA	COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER:	143:199868	CA
TITLE:	Solid forms of montelukast	
INVENTOR(S):	Mestrovic, Ernest; Horvat, Michaela; Devcic, Maja; Avdagic, Amir; Cicic, Dominik; Marinkovic, Marina	
PATENT ASSIGNEE(S):	Pliva- Istrazivanje I Razvoj D.O.O., Croatia	
SOURCE:	PCT Int. Appl., 30 pp.	
DOCUMENT TYPE:	Patent	
LANGUAGE:	English	

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

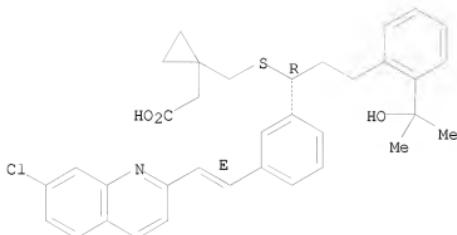
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005073194	A2	20050811	WO 2005-HR5	20050119
WO 2005073194	A3	20060504		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, US, UZ, VC, VN, YU, ZA, ZM, ZW, SM RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1709001	A2	20061011	EP 2005-702162	20050119
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU				
US 20070225325	A1	20070927	US 2007-587537	20070607
PRIORITY APPLN. INFO.:			US 2004-540307P	P 20040128
			WO 2005-HR5	W 20050119

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB	The present invention relates to a new crystalline form and new amorphous forms of montelukast acid, to a process for their preparation, to pharmaceutical formulations containing them. Montelukast was prepared by the treatment of its sodium salt with a citric acid buffer. A crystalline form the acid was obtained which was characterized by x-ray crystallog.
IT	158966-92-8P, Montelukast
RL:	PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (solid forms of montelukast)
RN	158966-92-8 CA
CN	Cyclopropaneacetic acid, 1-[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.

Double bond geometry as shown.



OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD  
(1 CITINGS)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 13 OF 15 CA COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 142:38157 CA

TITLE: An improved method for preparation of montelukast acid and sodium salt

INVENTOR(S): Suri, Sanjay; Singh, Jujhhar; Sarin, Gurdeep Singh;

PATENT ASSIGNEE(S): Morepen Laboratories Limited, India

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

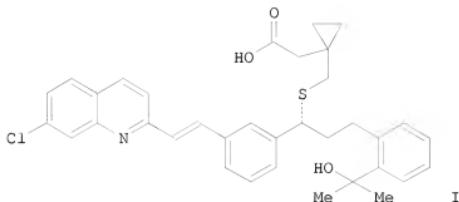
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004108679	A1	20041216	WO 2003-IN214	20030606
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KE, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2528228	A1	20041216	CA 2003-2528228	20030606
AU 2003253247	A1	20050104	AU 2003-253247	20030606
EP 1631550	A1	20060308	EP 2003-817134	20030606
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK				
IN 2005DN05558	A	20091002	IN 2005-DN5558	20051130
US 20070082925	A1	20070412	US 2006-576971	20060425
PRIORITY APPLN. INFO.:			WO 2003-IN214	W 20030606
OTHER SOURCE(S):	CASREACT	142:38157		

GI



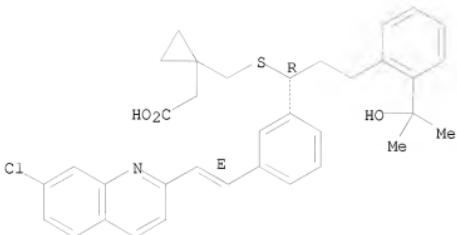
**AB** The invention relates to a preparation of montelukast acid sodium salt of formula I•Na in amorphous form, useful as leukotriene antagonist (no biol. data). The method comprises of following steps: (a) generating the dilithium dianion of 1-(mercaptopethyl)cyclopropane acetic acid by reacting with alkyl lithium, (b) coupling the said dianion with wet mesylate to get montelukast acid in crude form, (c) obtaining DCHA salt in crude form by adding dicyclohexylamine (DCHA) to crude acid obtained in the above step (b), (d) purifying and converting the said DCHA salt in crude form to montelukast acid in pure form, and (e) reacting the pure montelukast acid in a polar protic solvent with a source of sodium ion followed by evaporating the solvent and triturating of the residue with non-polar water immiscible solvent. For instance, I•Na was obtained from the prepared and purified I and sodium hydroxide with a yield of 98.7% (HPLC purity was 99.42%). The invention proposes industrially feasible and cost-effective process for high-yield and high-purity preparation of I•Na.

**IT** 158966-92-8P  
**RL:** IMF (Industrial manufacture); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (improved method for preparation of amorphous montelukast acid and sodium salt useful as leukotriene antagonists)

**RN** 158966-92-8 CA

**CN** Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio]methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (11 CITINGS)  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 14 OF 15 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 139:185671 CA  
 TITLE: Novel anhydrous amorphous forms of montelukast sodium salt  
 INVENTOR(S): Reguri, Buchi Reddy; Bollikonda, Satyanarayana;  
 Bulusu, Veera Venkata Naga Chandra Sekhar  
 PATENT ASSIGNEE(S): Reddy's Laboratories Ltd., India; Cord, Janet I.  
 SOURCE: PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003066598	A1	20030814	WO 2003-US3700	20030207
WO 2003066598	A9	20031204		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				
IN 2002MA00094	A	20050304	IN 2002-MA94	20020207
AU 2003209043	A1	20030902	AU 2003-209043	20030207
PRIORITY APPLN. INFO.:			IN 2002-MA94	A 20020207
			WO 2003-US3700	W 20030207

AB The present invention relates to novel anhydrous amorphous forms of alkali salts of montelukast, to processes for their preparation, to compns. containing them and to methods of treatment using the same. Montelukast is a leukotriene antagonist, useful as antiasthmatic, antiallergic,

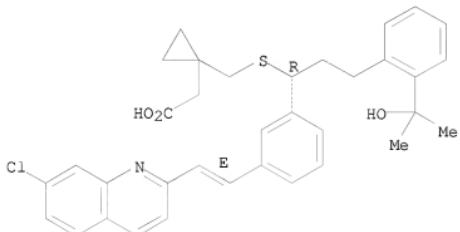
anti-inflammatory and cytoprotective agent.

IT 158966-92-8P, Montelukast, alkali metal salts  
 RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);  
 BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation, compns., and therapeutic uses of anhydrous amorphous  
 forms of montelukast alkali metal salts)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-  
 quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-  
 methylethyl)phenyl]propyl]thio]methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.

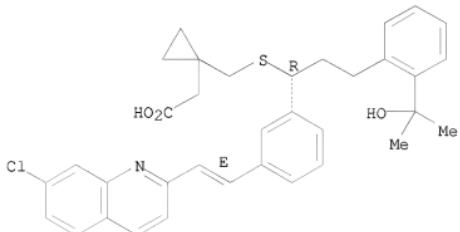


IT 158966-92-8P, Montelukast  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation, compns., and therapeutic uses of anhydrous amorphous  
 forms of montelukast alkali metal salts)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-  
 quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-  
 methylethyl)phenyl]propyl]thio]methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
 Double bond geometry as shown.



OS.CITING REF COUNT: 8 THERE ARE 8 CAPLUS RECORDS THAT CITE THIS RECORD  
 (8 CITINGS)  
 REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L26 ANSWER 15 OF 15 CA COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 137:268473 CA  
 TITLE: Porous drug matrices and methods of manufacture  
 thereof  
 INVENTOR(S): Straub, Julie; Altreuter, David; Bernstein, Howard;  
 Chickering, Donald E.; Khattak, Sarwat; Randall, Greg  
 PATENT ASSIGNEE(S): Acusphere Inc., USA  
 SOURCE: U.S. Pat. Appl. Publ., 20 pp., Cont.-in-part of U. S.  
 6,395,300.  
 CODEN: USXECO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020142050	A1	20021003	US 2002-53929	20020122
US 6395300	B1	20020528	US 1999-433486	19991104
EP 1642572	A1	20060405	EP 2005-27194	20000525
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
CN 1823737	A	20060830	CN 2005-10136940	20000525
CN 100376291	C	20080326		
US 6645528	B1	20031111	US 2000-694407	20001023
US 6932983	B1	20050823	US 2000-706045	20001103
ZA 2001010347	A	20030730	ZA 2001-10347	20011218
US 20050048116	A1	20050303	US 2004-924642	20040824
US 20050058710	A1	20050317	US 2004-928886	20040827
PH 1200600163	A	20090824	PH 2006-1200600163	20060322
PRIORITY APPLN. INFO.:				
			US 1999-136323P	P 19990527
			US 1999-158659P	P 19991008
			US 1999-433486	A2 19991104
			US 2000-186310P	P 20000302
			CN 2000-808161	A3 20000525
			EP 2000-939365	A3 20000525
			PH 2000-1200001402	A3 20000529
			US 2002-53929	A3 20020122

## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB Drugs, especially low aqueous solubility drugs, are provided in a porous matrix form,

preferably microparticles, which enhances dissoln. of the drug in aqueous media. The drug matrixes preferably are made using a process that includes (i) dissolving a drug, preferably a drug having low aqueous solubility, in a volatile solvent to form a drug solution, (ii) combining at least one pore forming agent with the drug solution to form an emulsion, suspension, or second solution and hydrophilic or hydrophobic excipients that stabilize the drug and inhibit crystallization, and (iii) removing the volatile solvent and pore forming agent from the emulsion, suspension, or second solution to yield the porous matrix of drug. Hydrophobic or hydrophilic excipients may be

selected to stabilize the drug in crystalline form by inhibiting crystal growth or to stabilize the drug in amorphous form by preventing crystallization. The pore forming agent can be either a volatile liquid that is immiscible with the drug solvent or a volatile solid compound, preferably a volatile salt. In a preferred embodiment, spray drying is used to remove the solvents and the pore forming agent. The resulting porous matrix has a faster rate of dissolution following administration to a patient, as compared to non-porous matrix forms of the drug. In a preferred embodiment, microparticles of the porous drug matrix are reconstituted with an aqueous medium and administered parenterally, or processed using standard techniques into tablets or capsules for oral administration. Thus, 5.46 g of PEG 8000, 0.545 g of prednisone, and 0.055 g of Span 40 were dissolved in 182 mL of methylene chloride. A solution of 3.27 g of ammonium bicarbonate in 18.2 mL of water was added to the organic solution (phase ratio 1:10) and homogenized for 5 min at 16,000 RPM. The resulting emulsion was spray dried on a benchtop spray dryer using an air-atomizing nozzle and nitrogen as the drying gas.

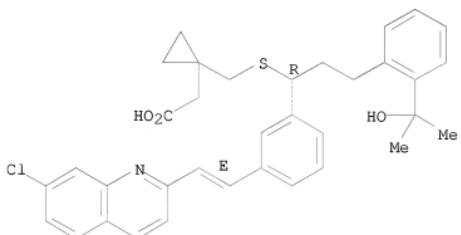
IT 158966-92-8, Montelukast

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(porous drug matrixes and methods of manufacture thereof)

RN 158966-92-8 CA

CN Cyclopropaneacetic acid, 1-[[[(1R)-1-[3-[(1E)-2-(7-chloro-2-quinolinyl)ethenyl]phenyl]-3-[2-(1-hydroxy-1-methylethyl)phenyl]propyl]thio)methyl]- (CA INDEX NAME)

Absolute stereochemistry.  
Double bond geometry as shown.



OS.CITING REF COUNT: 11 THERE ARE 11 CAPLUS RECORDS THAT CITE THIS RECORD (14 CITINGS)

=> d his

(FILE 'HOME' ENTERED AT 10:17:37 ON 19 APR 2010)

FILE 'REGISTRY' ENTERED AT 10:17:46 ON 19 APR 2010

L1 8 S MONTELUKAST

L2 1 S 158966-92-8/RN

FILE 'CA' ENTERED AT 10:22:29 ON 19 APR 2010

L3 849 S L2

10/587537

L4           5 S L2 AND CRYSTALLINE  
L5           0 S MONTELUKAST ACETIC ACID  
  
FILE 'REGISTRY' ENTERED AT 10:31:48 ON 19 APR 2010  
L6           0 S MONTELUKAST ACETIC ACID  
L7           0 S "1-(((1(R)-3-(2-(7-CHLORO-2-QUINOLINYL)THENYL)-PHENYL)-3-(  
  
FILE 'CA' ENTERED AT 10:33:42 ON 19 APR 2010  
L8           0 S "1-(((1(R)-3-(2-(7-CHLORO-2-QUINOLINYL)THENYL)-PHENYL)-3-(  
L9           0 S HR05/00005  
L10          0 S 20070225325  
  
FILE 'USPATFULL' ENTERED AT 10:34:52 ON 19 APR 2010  
L11          0 S 20070225325  
L12          0 S SOLID FORMS OF MONTELUKAST ACKD  
L13          1 S SOLID FORMS OF MONTELUKAST ACID  
  
FILE 'CA' ENTERED AT 10:35:22 ON 19 APR 2010  
L14          0 S L13  
L15          0 S US 20070225325  
L16          0 S MESTROVIC/AU  
L17          95 S MESTROVIC?/AU  
L18          5 S L17 AND HORVAT?/AU  
              SEL RN  
  
FILE 'REGISTRY' ENTERED AT 10:38:20 ON 19 APR 2010  
L19          12 S E1-E12  
  
FILE 'CA' ENTERED AT 10:38:43 ON 19 APR 2010  
L20          505232 S L19  
  
FILE 'REGISTRY' ENTERED AT 10:38:52 ON 19 APR 2010  
L21          0 S L3 AND AMORPHHOUS  
L22          0 S AMORPHOUS AND L3  
L23          0 S "FORM I" AND L3  
  
FILE 'CA' ENTERED AT 10:42:43 ON 19 APR 2010  
L24          13 S AMORPHOUS AND L3  
L25          5 S CRYSTALLINE AND L3  
L26          15 S L24 OR L25

=>

---Logging off of STN---

=>  
Executing the logoff script...

=> LOG Y

STN INTERNATIONAL LOGOFF AT 10:47:17 ON 19 APR 2010